

In the Specification

Please replace paragraph 8 with the following:

BM
In accordance with one aspect of the present invention the acoustical and thermal insulating layer may include a relatively high density, non-laminate skin of polymer fiber along at least one face thereof. Still further, the insulator may include a first facing layer over a first face of the acoustical and thermal insulating layer. Similarly, a second facing layer may be provided over a second face of the acoustical and thermal insulating layer. Either of the facing layers may be constructed from a material selected from a group consisting of polyester, polypropylene, polyethylene, rayon, ethylene vinyl acetate, polyvinyl chloride, fibrous scrim, metallic foil and mixtures thereof. The acoustical and thermal insulating layer has a [density] weight per unit area of between about 20-130 g/ft².

Please replace paragraph 13 with the following:

Figures 2-[5] 4 are schematical side elevational illustrations of other possible alternative embodiments of the present invention; and

Az
(Please replace paragraph 14 with the following:)

Figure [6] 5 is a graphical illustration of a 1500-4500 RPM first gear runup into a driver's right ear microphone comparing the acoustical performance of a standard state of the art trim panel and a trim panel constructed in accordance with the embodiment of the present invention shown in Figure 1.

Please replace paragraph 17 with the following:

73 The polymer fiber is not foamed and typically is a nonwoven fabric. The polymer fiber may be selected from a group of fibers consisting of polyester, a combination of polyester and fiberglass, polypropylene and any mixtures thereof. Advantageously, such an insulator 10 has a [density] weight per unit area of between about 20-130 g/ft². For example, the acoustical and thermal insulating layer 12 may comprise substantially 100% polyethylene terephthalate.

Please insert the following new paragraphs between paragraphs 20 and 21.

24 As set forth in that document, the layer 12 is fed or placed into a molding press including at least two molding elements such as platens. One of the molding elements is heated to a temperature above the softening temperature characteristic of the polymer based blanket material in the layer 12. The other molding element is heated to a temperature below the softening temperature characteristic of the polymer based blanket material in the layer 12. The molding elements are closed and differential heat and pressure are applied to two opposing sides of the layer 12. The applied pressure and resulting compression of the layer 12 varies depending upon the shape of the molding elements, the gap width between the molding elements and the thickness of the layer 12 at any given point.

This technique functions to heat a first zone of the layer 12 so as to soften the polyester binding fibers adjacent the first relatively hot molding element. In contrast, the remaining polymer binding fibers in the layer 12 remain relatively cool and are not softened. When this occurs in the mold with the layer 12 under compression, the fibers in the first zone are reshaped into a higher density skin 14. The other fibers in the layer 12 are not softened and, therefore, when the pressure is removed, they generally retain their original thickness and density characteristics. In this way, a single layer 12 of polymer based blanket material may be provided with a nonlaminated high-density skin 14 that is not prone or subject to delamination.

Of course, a high-density nonlaminated skin 14 may be provided along both faces of the layer 12 by running both molding elements at a temperature above the softening temperature characteristic of the polymer based blanket material in the layer 12.

Please replace paragraph 22 with the following:

AS
In yet another embodiment shown in Figure 3, the insulator 10 includes a nonlaminated acoustical and thermal insulating layer of polymer fiber 12 (e.g. a nonwoven fabric) selected from a group consisting of polyester, a combination of polyester and fiberglass, polypropylene and any mixtures thereof in combination with a facing layer 16 over a first face 18 of the acoustical and thermal insulating layer. The facing may be present in one or more layers. Facing materials commonly employed include polyester, rayon, polyethylene, polypropylene, ethylene vinyl acetate, polyvinyl chloride, fibrous scrim, metallic foil and mixtures thereof. For example, a facing of ethylene vinyl acetate or polyvinyl chloride may have a [density] weight per unit area of about 0.2-2.0 lbs/ft².

Please replace paragraph 26 with the following:

Ad
Figure [6] 5 graphically illustrates the acoustical performance of a standard state of the art trim panel and a trim panel constructed in accordance with the teachings of the present invention. Specifically, the modified articulation index for a frequency range of 1550-4200 Hertz is shown for a 1500-4500 RPM first gear runup into a driver's right ear microphone. The state of the art trim panel was constructed from cotton shoddy of different densities for different areas of the vehicle ranging from approximately 2.5 - 4.5 lbs/cubic foot. The trim panel of the present invention was a polyester fiber that averaged about 30% less density for any given area where the shoddy was replaced or from about 1.75 - 3.15 pcf. Thicknesses were from about 10 - 15 mm for the prior art cotton shoddy panel and 6 - 15 mm for the polyester fiber of the present trim panel. As should be appreciated from viewing Figure [6] 5, the trim panel of the present invention provided significantly improved acoustical performance throughout the tested frequency range.

In the Drawings

Please cancel Figure 5 and renumber Figure 6 as Figure 5.